



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,536	04/01/2004	John M. Stropki JR.	LEEE 2 00358	1570
64956	7590	09/11/2007	EXAMINER	
FAY SHARPE / LINCOLN 1100 SUPERIOR AVENUE SEVENTH FLOOR CLEVELAND, OH 44114			KERN, KEVIN P	
			ART UNIT	PAPER NUMBER
			1725	
			MAIL DATE	DELIVERY MODE
			09/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,536	Applicant(s) STROPKI ET AL.	
	Examiner Kevin P. Kerns	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47, 50 and 52-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-43 and 52-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44 is/are rejected.
- 7) ☒ Claim(s) 45-47 and 50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 47 is objected to because of the following informalities: in the 1st line, delete one of the instances of "wherein" after "46". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2 316 244 in view of DE 26 50 522 (complete translation previously provided).

GB 2 316 244 discloses a battery powered electric arc welder, in which the welder includes a welding station, with the welding station including the area adjacent electrodes (12,16) and workpiece W; a rechargeable battery 10 that supplies DC battery voltage; means for recharging the battery (page 1, line 11) that is operable to be powered from an external AC power source, such as the mains, vehicle alternators/dynamos, etc. (page 3, lines 8-10) by use of a connecting cable, or extension cord; a pulse width modulator with a high switching speed converter (a DC up chopper that includes an inductor in combination with a transistor switch and converts from 12V to 36V) coupled to the battery (transistor T having a switching frequency of 10kHz); and a controller (control circuit 14) coupled to the welder with a feedback circuit (page 1, lines 28-31) further coupled with the welding station (abstract; page 1, line 9 through page 4, line 22; and Figures 1 and 2). GB 2 316 244 does not specifically disclose that the battery (or battery packs) and converter are movable on a wheeled carriage.

However, DE 26 50 522 discloses a rollable arc welding trolley for inert gas welding, in which the welding trolley includes a plurality (two or more) of mounted batteries (9,10) that supply DC voltage in individual 12V battery increments to obtain a series of 24V, 36V, 48V etc. battery packs as suitable for the intended welding operation (see last paragraph on page 5; 1st paragraph on page 7; and claims 2 and 3 of translation) and to provide for convenient individual battery recharging and replacement, such that the trolley further includes wheels, for the purpose of providing portability for the welder, while avoiding the requirement of mains electricity connection

during welding, and no welding transformer (abstract; page 3, last paragraph through page 7, 1st paragraph of translation; and Figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the battery powered electric arc welding device, as disclosed by GB 2 316 244, by using a wheeled carriage for a DC voltage welder having battery packs, as taught by DE 26 50 522, in order to provide for convenient individual battery recharging and replacement, and to provide portability for the welder, while avoiding the requirement of mains electricity connection during welding, and no welding transformer (DE 26 50 522; abstract; and page 4, 1st four full paragraphs of translation).

5. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (US 5,250,786) in view of DE 26 50 522 (complete translation previously provided).

Kikuchi et al. disclose a DC arc welding apparatus, in which the apparatus includes a welding station, with the welding station including the area adjacent battery-driven welder 10, engine-driven welder 20, and associated electrodes and workpiece(s); a rechargeable battery 11 that supplies DC battery voltage; means for recharging the battery (charging device 19) that is operable to be powered from an external AC power source, such as an output terminal 206 of an alternator 201 (column 5, lines 32-39; and Figure 2) by use of a connecting cable, or extension cord; a pulse width modulator with a high switching speed converter coupled to the battery (a DC chopper control device

Art Unit: 1725

18 that is nonspecific with regard to controlling a DC up or down chopper – column 5, lines 18-26; and Figure 2); and a controller (control circuit 105) coupled to the welder with a feedback circuit (column 6, lines 65-68; column 7, lines 1-6; column 8, lines 14-36; and Figure 4) further coupled with the welding station (abstract; column 1, lines 7-11; column 3, lines 30-64; column 4, line 48 through column 7, line 39; column 8, lines 14-36; column 11, lines 26-39; and Figures 1, 2, and 4). Kikuchi et al. do not specifically disclose that the battery (or battery packs) and converter are movable on a wheeled carriage.

However, DE 26 50 522 discloses a rollable arc welding trolley for inert gas welding, in which the welding trolley includes a plurality (two or more) of mounted batteries (9,10) that supply DC voltage in individual 12V battery increments to obtain a series of 24V, 36V, 48V etc. battery packs as suitable for the intended welding operation (see last paragraph on page 5; 1st paragraph on page 7; and claims 2 and 3 of translation) and to provide for convenient individual battery recharging and replacement, such that the trolley further includes wheels, for the purpose of providing portability for the welder, while avoiding the requirement of mains electricity connection during welding, and no welding transformer (abstract; page 3, last paragraph through page 7, 1st paragraph of translation; and Figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the battery powered electric arc welding apparatus, as disclosed by Kikuchi et al., by using a wheeled carriage for a DC voltage welder having battery packs, as taught by DE 26 50 522, in order to provide for

convenient individual battery recharging and replacement, and to provide portability for the welder, while avoiding the requirement of mains electricity connection during welding, and no welding transformer (DE 26 50 522; abstract; and page 4, 1st four full paragraphs of translation).

Allowable Subject Matter

6. Claims 45-47 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. The examiner acknowledges the applicants' amendment received by the USPTO on August 13, 2007. The claim objection to claim 47 remains (see above section 1). The applicants have amended claims 45 and 50, such that claims 45-47 and 50 are now indicated as allowable subject matter in above section 6 (for reasons set forth at the bottom of page 11 of applicants' remarks). Claims 1-43 and 52-57 remain withdrawn from consideration. Claims 44-47 and 50 remain under consideration in the application.

8. Applicants' arguments filed August 13, 2007 (as applied to rejected independent claim 44) have been fully considered but they are not persuasive.

With regard to the applicants' remarks/arguments on pages 10 and 11 of the amendment, it is noted that the applicants appear to be mischaracterizing the teachings

of the GB 2 316 244 and Kikuchi et al. references, as they both continue to apply in disclosing a pulse width modulator and a waveform generator. Contrary to the applicants' arguments in the last full paragraph on page 10, as well as the paragraph bridging pages 10 and 11 of the remarks section, GB 2 316 244 and Kikuchi et al. individually disclose a pulse width modulator with a high switching speed converter in the form of a DC chopper (see above sections 4 and 5). As previously discussed in the prior Office Action mailed May 17, 2007, the only missing element from independent claim 44 is the use of a wheeled carriage for a DC welder having the remaining claimed features regarding its circuitry. As a result, DE 26 50 522 was provided to show a DC welder that is movable on a wheeled carriage, with the motivation for combining with the primary references being for improved portability of the welder (see above sections 4 and 5). As a result, independent claim 44 remains rejected.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jonathan Johnson can be reached on (571) 272-1177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 9/8/07*
Primary Examiner
Art Unit 1725

KPK
kpk
September 8, 2007